

ORIENTAL LYCAENIDAE, RIODINIDAE, AND HESPERIIDAE FROM THE CENTRAL NEPAL HIMALAYAS¹

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A total of 8 lycaenid, 2 riodinid, and 6 hesperiid species are reported from the Oriental realm of the Kali Gandaki of Nepal, along with information about their known ranges, elevations, and food-plants. The food-plant of *Lycaena pavana* is *Polygonum recumbens* (Polygonaceae). The lack of any hesperiid above about 2300 m in this region is noted.

INTRODUCTION

The following is an account of the Lycaenidae, Riodinidae, and HesperIIDae I collected mostly in August in the Oriental realm of the Kali Gandaki region of the Central Nepal Himalayas. These were taken incidentally to the International Nepal Himalayan Expedition for Lepidoptera Palaearctica (INHELP) 1977 expedition's main objective of high elevation Palaearctic butterflies, reported elsewhere (Epstein 1979a, b; Shields 1981).

LYCAENIDAE

1. ***Celastrina huegelii oreana*** Swinhoe
Ca. 24-32 km SW Marpha, Kali Gandaki Valley, est. 2530-2560 m, VIII-8-77, 17♂♂ 1♀ fresh to worn, mostly at mud.
Kalopani, 32 km SW Marpha, 2530 m, VIII-9-77, 1♂ 13♀♀ fair to worn.
Between Kalopani and Lethe, 2530 m, VIII-9-77, 13♂♂ 5♀♀.
Between Kalopani (2440 m) and Ghasa (2010 m), VIII-10-77, 4.

2560 m was the height in elevation. The subspecies occurs in Sikkim, Bhutan, Assam, and Nepal (Cantlie 1963).

2. ***Celastrina dilectus dilectus*** Moore
6½ km W Khangsar, upper end (N side) Khangsar Valley, 4500 m, VII-9-77, 1♂ fair.

This was undoubtedly a stray from lower, subtropical elevations. It ranges in Simla-Karens, and Nepal (Cantlie 1963). The species is distributed from NW Himalaya through Burma to W China and Formosa, and also occurs in Malaya (Shirozu & Saigussa 1962).

3. ***Celastrina carna marata*** Corbet
Vicinity of Lumle, 1615 m, VIII-15-77, 1♂ 1♀ fresh.
C. carna occurs in India to Malaya, Java, and Sumatra (Corbet & Pendlebury 1956).
4. ***Zizeeria maha maha*** Kollar
Between Kalopani (2440 m) and Ghasa (2010 m), VIII-10-77, 6.
Ghasa (2010 m) to Tatopani (1220 m), VIII-11-77, 5.

According to Shirozu & Saigusa (1962, 1963), this common species is distributed from Baluchistan and Kashmir to India, Assam, Siam, S. China, S. Korea, Japan, Formosa, and the Ryukyus. *Z. maha maha* itself occurs in Baluchistan, Kurram, Pakistan-Central, N

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India-Nepal, Sikkim, Assam, and Burma (Cantlie 1963). An unspecified subspecies of *Z. maha* flies from 1220-2440 m in SE Tibet (Evans 1915). Shirozu (1955) and Fujioka (1970) list many Nepal records. Its food plant is *Oxalis corniculata* (Oxalidaceae) (Sevastopulo 1973).

5. **Jamides celeno celeno** Cramer, warm-season form.

Between Naudanda (1458 m) and Pokhara (914 m), VIII-16-77, 1 ♂.

This species is common in India, Sri Lanka and Burma, up to 1980 m in S India (Wynter-Blyth 1957). Shirozu (1955), Forster (1961), and Fujioka (1970) list some Nepal records. *J. celeno* is distributed from Ceylon and India to Formosa and South China, and through the Archipelago to New Guinea and the Bismarcks (Corbet & Pendlebury 1956). *Heynea* (Meliaceae) and *Butea* (Leguminosae) are the food plants (Sevastopulo 1973).

6. **Lycaena pavana** Horsfield & Moore

Between Kalopani and Lethe (2530 m), VIII-9-77, 2 ♂♂ 2 ♀♀ fresh, generally on yellow *Aster*, yellow *Potentilla*, etc., flying in same area as several *L. phlaeas*. Between Kalopani (2440 m) and Ghasa (2010 m), VIII-10-77, 37 ♂♂ 13 ♀♀ mostly fresh, sometimes worn, primarily at flowers along streams. Just NE of Ghasa (est. 2100 m), one female oviposited at mid morning on the vegetative sprig of the moist-area plant *Polygonum recumbens* Royle ex Bab. (det. by A. O. Chater, BMNH).

2530 m was the highest elevation at which we found this species. *L. pavana* occurs from Kashmir to Kumaon and Nepal (Cantlie 1963), and is fairly common to local. In Kumaon it is known from 1370-3960 m (Nicéville 1890). It flies from June to August.

7. **Heliophorus androcles coruscans** Moore

Between Kalopani and Lethe (2530 m), VIII-9-77, 1 ♀ worn.

Between Kalopani (2440 m) and Ghasa (2010 m), VIII-10-77, 16.

Between Tatopani (1220 m) and Chitre (2150 m), VIII-12-77, 3.

H. a. coruscans occurs from Kashmir to Kumaon and Nepal. The species is found from Kashmir to Assam, SE Tibet, and N Burma, with four subspecies; not rare (Wynter-Blyth 1957). Shirozu (1955) records *coruscans* from west, north, and east Nepal. Champion & Riley (1926) report *coruscans* at 3660 m in the Gori Gorge. Fujioka (1970) gives a number of records for *coruscans* from the NE corner of Nepal, for July and August.

8. **Heliophorus epicles indicus** Fruhstorfer

Vicinity of Birethanti, 1005 m, VIII-14-77, 2.

There are seven named subspecies of *epicles*, extending from Kumaon to Assam, Burma, the Oriental region, Formosa, and Java and Sumatra (Shirozu & Saigusa 1962). *H. e. indicus* occurs in Nepal, Sikkim, Bhutan, Assam, and Annam (Shirozu 1955). There are records from Katmandu and East Nepal (Shirozu 1955, Fujioka 1970).

RIODINIDAE

1. **Zemerus flegyas indicus** Fruhstorfer, wet-season form. Tatopani (1220 m) to Chitre (2150 m), VIII-12-77, 1 ♂. Lumle, 1615 m, VIII-15-77, 1 ♂.

This species ranges from Mussoorie to Assam, Sumatra, Nias, Java, Bali, Borneo, Lombok, Sumbawa, Sumba, Hainan, Siam, Tenasserim, Shan-States, Mergui, Burma, South China, Philippines, Malaya, and Celebes, where it is common. See Shirozu (1955), Forster (1961), and Fujioka (1970) for Nepal records. It is separated into 12 subspecies.

2. **Dodona ouida ouida** Moore

Tatopani (1220 m) to Chitre (2150 m), VIII-12-77, 1♂.

The species occurs in the Himalayas as far west as Mussoorie; hills of NE India, Burma, from 1220-2440 m, to West China (Wynter-Blyth 1957). It is also known from Lower Tsang Po, 2135 m, SE Tibet (Evans 1915). See Shirozu (1955) and Fujioka (1970) for Nepal records. Typical *D. ouida ouida* occurs from Nepal to Burma. Both these riodinid species use *Maesa* (Myrsinaceae) as a food plant (Sevastopulo 1973).

HESPERIIDAE

1. **Coladenia dan fatih** Kollar

Tatopani (1220 m) to Chitre (2150 m), VIII-12-77, 1♂ fresh. Lumle, 1615 m, VIII-15-77, 1♂ fresh.

It is found in the NW Himalayas (Kangra to Nepal), Sikkim to Burma, NW Siam, Indo-China, and Hainan (Evans 1949, Shirozu & Saigusa 1962). Ssp. *faith* continues in a slightly modified form into the E Himalayas. *C. dan's* foodplant is *Achyranthes aspera* (Amaranthaceae) (Sevastopulo 1973). This species has 11 subspecies, distributed from NW Himalayas to Yunnan, Indo-China, Malay Peninsula, Borneo, Celebes, and Greater and Lesser Sunda Islands (Shirozu & Saigusa 1962).

2. **Spialia galba** Fabricius

Lumle, 1615 m, VIII-15-77, 1♂ fresh.

It ranges from Sri Lanka, S India, Cutch, Sind, Ganjam, central India, NW Himalayas (Kashmir-Kumaon), Bengal, Sikkim, Assam, Burma to S. Shan States, to South China and Hainan (Evans 1949, Shirozu 1955). This is the only representative of this Palaearctic genus in the Oriental region. The foodplant is *Sida rhombifolia* (Malvaceae) (Sevastopulo 1973).

3. **Bibasis vasutana** Moore

Birethanti, 1005 m, VIII-14-77, 1♂ fresh. Found in Nepal, Sikkim, Assam, and Burma (Karens, Dawnas) (Evans 1949).

4. **Aeromachus stigmata stigmata** Moore, dry season form. Kalopani to Ghasa, 2440-2010 m, VIII-10-77, 3♂.

This subspecies ranges from NW Himalayas (Murree-Kumaon), Sikkim and Bhutan. The species is found in Manipur and Naga Hills, Assam, N Burma to Bhamo, S. Shan States, Karens, Yunnan; there are two other subspecies (Evans 1949).

5. **Parnara guttatus mangala** Moore

Lumle, 1615 m, VIII-15-77, 2♂♂ fresh.

This subspecies is found in S & W China (Kiang Si, Kwang Tung, Szechwan, Yunnan), Bokhara, Chitral, NW Frontier (Khyber, Hangu), NW Himalayas (Kashmir-Kumaon), Sikkim, Assam, N Burma, S. Shan States, Hainan (Evans 1949). Sevastopulo (1973) reports grasses, *Oryza*, *Saccharum*, bamboo, and *Zea mays* (all Gramineae) as foodplants of *P. guttatus*.

6. **Pelopidas sinensis** Mabille

Kalopani to Ghasa, 2440-2010 m, VIII-10-77, 1♂ 1♀ fresh.

Vicinity of Tatopani, 1220 m, VIII-11-77, 1♂ fresh.

It occurs from Shanghai to S & W China, NW Himalayas (Kulu-Kumaon), Sikkim, Assam, S. Shan States (Evans, 1949).

We found no skippers above c. 2285 m, and a total lack of skippers in the alpine zone. Shirozu (1955) reports no skippers above c. 2285 m in the Thakkhola and Manang regions of central Nepal too. Mani (1962, 1968) and Mani & Singh (1962) make no mention of any high elevation skipper records in their Lepidoptera Himalayan summaries. *Hesperia alpina* was taken at Batura (3100-3600 m), western Karakorum (Evans 1927). In Tibet, by con-

trast, skippers are reported up to 2440-3200 m (Evans 1915), 3359-3660 m (Riley 1927, 2 sp.), and in SE Tibet, 2745-4570 m (South 1913, 11 sp.). The reason for this difference is unresolved. An abundance of grasses appear available to them in the alpine zone, so their absence is puzzling.

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